

# Population Management 2000

Customized report

Studbook information:

Data exported on: 9 Jan 2012

Version: Sparks v1.6

Data compiled by: Jocelyn Hockley

Founders = 7 (no change)

Potential Founders = 0 additional

Living Descendants = 32.00

Percent Known = 84.2 (decreased)

Gene Diversity = 0.8490 (up slightly from 0.8441)

Mean Inbreeding Coefficient (F) = 0.0423 (up from 0.0156)

Average Mean Kinship (MK) = 0.1486 (down from 0.1559)

Males					Females				
SB#	MK	% known	Age	Location	SB#	MK	% known	Age	Location
29	0.048	100.0	5	BICHENO	39	0.056	50.0	1	BICHENO
40	0.056	50.0	1	BICHENO	19	0.113	100.0	2	WINGS
41	0.056	50.0	1	BICHENO	20	0.113	100.0	2	BONORONG
42	0.056	50.0	1	BICHENO	23	0.125	100.0	2	SHEFFIDEV
21	0.113	100.0	2	SHEFFIDEV	24	0.125	100.0	2	TAS ZOO
22	0.113	100.0	2	SHEFFIDEV	26	0.125	100.0	2	SHEFFIDEV
25	0.125	100.0	2	WINGS	8	0.161	100.0	3	TROWUNNA
14	0.135	100.0	3	TROWUNNA	33	0.171	100.0	U1	TROWUNNA
4	0.161	100.0	4	SHEFFIDEV	12	0.173	100.0	5	TROWUNNA
5	0.161	100.0	4	BONORONG	7	0.177	100.0	3	SHEFFIDEV
9	0.161	100.0	3	BONORONG	34	0.179	100.0	U1	TROWUNNA
10	0.161	100.0	3	TAS ZOO	35	0.179	100.0	U1	TROWUNNA
11	0.161	100.0	3	TAS ZOO	36	0.179	100.0	U1	TROWUNNA
33	0.171	100.0	U1	TROWUNNA	37	0.179	100.0	U1	TROWUNNA
34	0.179	100.0	U1	TROWUNNA	38	0.179	100.0	U1	TROWUNNA
35	0.179	100.0	U1	TROWUNNA	16	0.188	100.0	2	TAS ZOO
36	0.179	100.0	U1	TROWUNNA	17	0.192	100.0	2	TROWUNNA
37	0.179	100.0	U1	TROWUNNA	2	0.202	100.0	5	SHEFFIDEV
38	0.179	100.0	U1	TROWUNNA	18	0.208	100.0	2	TROWUNNA
6	0.185	100.0	4	TROWUNNA	27	0.500	0.0	4	BICHENO
30	0.500	0.0	3	BICHENO	28	0.500	0.0	3	BICHENO
31	0.500	0.0	4	WINGS	32	0.500	0.0	3	WINGS

**Recommendations:** There has been a slight improvement in population but it is still in dire need of recruitment of wild founders to improve Gene diversity and reduce Mean kinship values. If breeding guidelines are followed then pairings should only occur from animals highlighted in above table. As such the following breeding recommendations are proposed (individual institutions would need to decide where animals were held).

Males				Females				
SB#	Name/ID	Location	MK	SB#	Name/ID*	Location	MK	Pair MK
29	582140	Bicheno	0.048	39	2011 born	Bicheno	0.056	0.500
				19	Maia	Wings	0.113	0.000
				20	April	Bonorong	0.113	0.000
				23	389199	Cradle	0.125	0.000
				24	310603	Tas Zoo	0.125	0.000
				26	595862	Cradle	0.125	0.000

\*Last 6 digits of Microship.

Male above is unlikely to breed due to age (5) but should NOT be bred with highlighted female.

Males				Females				
SB#	Name/ID	Location	MK	SB#	Name/ID*	Location	MK	Pair MK
40	2011 born	Bicheno	0.056	39	2011 born	Bicheno	0.056	0.500
				19	Maia	Wings	0.113	0.000
				20	April	Bonorong	0.113	0.000
				23	389199	Cradle	0.125	0.000
				24	310603	Tas Zoo	0.125	0.000
				26	595862	Cradle	0.125	0.000

Should NOT be bred with highlighted female (sister)

Males				Females				
SB#	Name/ID	Location	MK	SB#	Name/ID*	Location	MK	Pair MK
41	2011 born	Bicheno	0.056	39	2011 born	Bicheno	0.056	0.500
				19	Maia	Wings	0.113	0.000
				20	April	Bonorong	0.113	0.000
				23	389199	Cradle	0.125	0.000
				24	310603	Tas Zoo	0.125	0.000
				26	595862	Cradle	0.125	0.000

Should NOT be bred with highlighted female (sister)

Males				Females				
SB#	Name/ID	Location	MK	SB#	Name/ID*	Location	MK	Pair MK
42	2011 born	Bicheno	0.056	39	2011 born	Bicheno	0.056	0.500
				19	Maia	Wings	0.113	0.000
				20	April	Bonorong	0.113	0.000
				23	389199	Cradle	0.125	0.000
				24	310603	Tas Zoo	0.125	0.000
				26	595862	Cradle	0.125	0.000

Should NOT be bred with highlighted female (sister)

Males				Females				
SB#	Name/ID	Location	MK	SB#	Name/ID*	Location	MK	Pair MK
21	Orion	Cradle	0.113	39	2011 born	Bicheno	0.056	0.000
				19	Maia	Wings	0.113	0.250
				20	April	Bonorong	0.113	0.250
				23	389199	Cradle	0.125	0.063
				24	310603	Tas Zoo	0.125	0.063
				26	595862	Cradle	0.125	0.063

Should NOT be bred with highlighted females

Males				Females				
SB#	Name/ID	Location	MK	SB#	Name/ID*	Location	MK	Pair MK
22	630920	Cradle	0.113	39	2011 born	Bicheno	0.056	0.000
				19	Maia	Wings	0.113	0.250
				20	April	Bonorong	0.113	0.250
				23	389199	Cradle	0.125	0.063
				24	310603	Tas Zoo	0.125	0.063
				26	595862	Cradle	0.125	0.063

Should NOT be bred with highlighted females

Males				Females				
SB#	Name/ID	Location	MK	SB#	Name/ID*	Location	MK	Pair MK
25		Wings	0.125	39	2011 born	Bicheno	0.056	0.000
				19	Maia	Wings	0.113	0.063
				20	April	Bonorong	0.113	0.063
				23	389199	Cradle	0.125	0.250
				24	310603	Tas Zoo	0.125	0.250
				26	595862	Cradle	0.125	0.250

Should NOT be bred with highlighted females

Males				Females				
SB#	Name/ID	Location	MK	SB#	Name/ID*	Location	MK	Pair MK
14	Soloman	Trowunna	0.135	39	2011 born	Bicheno	0.056	0.000
				19	Maia	Wings	0.113	0.031
				20	April	Bonorong	0.113	0.031
				23	389199	Cradle	0.125	0.063
				24	310603	Tas Zoo	0.125	0.063
				26	595862	Cradle	0.125	0.063

Can be bred to ANY of the listed females

### Best Pairings

Males				Females				
SB#	Name/ID	Location	MK	SB#	Name/ID*	Location	MK	Pair MK
25	630920	Wings	0.113	19	Maia	Wings	0.113	0.063
40	2011 born	Bicheno	0.056	20	April	Bonorong	0.113	0.000
41	2011 born	Bicheno	0.056	26	595862	Cradle	0.125	0.000
14	Soloman	Trowunna	0.135	39	2011 born	Bicheno	0.056	0.000
21	Orion	Cradle	0.113	26	595862	Cradle	0.125	0.063
22	630920	Cradle	0.113	24	310603	Tas Zoo	0.125	0.063

These are just a guideline and are dependent on Zoos moving animals between institutions. Below are the resulting values of the above recommended pairings.

% known = 85.5 (increased which is a positive result)

MK = 0.1542 (increased which is negative result)

Gene Diversity = 0.8458 (decreased which is negative result)

Again acquisition of wild founders is critical to increase the genetic diversity of this population.